CLASSIFICATION AND CORRELATION

OF

THE SOILS OF

HANCOCK COUNTY
INDIANA

JULY 1974

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MIDWEST TECHNICAL SERVICE CENTER
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UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest Technical Service Center
Lincoln, Nebraska 68508

Classification and Correlation of the Soils of Hancock County, Indiana

The classification and correlation of Hancock County, Indiana was made as part of the final field review and field correlation which was held in the county May 7-11, 1974. The descriptive legend, laboratory data, correlation samples, field notes, interpretative tables, along with revised series descriptions and completed SCS-Soils-5's were reviewed by Ray Sinclair, state soil scientist, Frank Sanders, soil correlator, Don Ruesch, soil survey party leader, Al Zachary, Purdue University, and Maurice Stout, Jr. Roy Hibray, Jr., district conservationist, Paul Bowling, area conservationist, and Bobby Pirtle, soil scientist, also participated. Dr. John McClelland participated in the field review April 25-27, 1972.

Symbol	Field Name	Approved Name	Manuscript* Map Symbol
Br	Brookston silty clay loam	Brookston silty clay loam	Br
CrA	Crosby silt loam, 0-3% slopes	Crosby silt loam, 0 to 3 percent slopes	CrA
Ee	Eel silt loam	Eel silt loam	Ee
Ge	Genesee silt loam	Genesee silt loam	Ge
Ko	Kokomo silty clay loam	Kokomo silty clay loam	Ko
MaA	Martinsville loam, 0-2% slopes	Martinsville loam, 0 to 2 percent slopes	MaA
MaB2	Martinsville loam, 2-6% slopes, eroded	Martinsville loam, 2 to 6 percent slopes, eroded	MaB2
MmA	Miami silt loam, 0-2% slopes	Miami silt loam, 0 to 2 percent slopes	MmA
MmB2	Miami silt loam, 2-6% slopes, eroded	Miami silt loam, 2 to 6 percent slopes, eroded	MmB2

*The first capital letter is the first one of the series name. The second capital letter indicates the class of slope. Symbols without a slope letter are those with a slope range of 0 to 2 percent. A final number of 2 or 3 in the symbol indicates that the soil is eroded or severely eroded respectively.

Symbol	Field Name	Approved Name	Manuscript Map Symbol
MmC2	Miami silt loam, 6-12% slopes, eroded	Miami silt loam, 6 to 12 percent slopes, eroded	MmC2
MmD2	Miami silt loam, 12-18% slopes, eroded	Miami silt loam, 12 to 18 percent slopes, eroded	MmD2
MpC3	Miami clay loam, 6-12% slopes, severely eroded	Miami complex, 6 to 12 percent slopes, severely eroded	MpC3
MpD3	Miami clay loam, 12-18% slopes, severely eroded	Miami complex, 12 to 18 percent slopes, severely eroded	MpD3
Mr	Milford silty clay loam	Milford silty clay loam	Mr
OcA	Ockley silt loam, 0-2% slopes	Ockley silt loam, 0 to 2 percent slopes	OcA
FoA	Fox loam, 0-2% slopes		
FoB2	Fox loam, 2-6% slopes, eroded	Ockley silt loam, 2 to 6 percent slopes, eroded	OcB2
FoC2	Fox loam, 6-12% slopes, eroded	Ockley complex, 6 to 12 percent slopes, eroded	OkC2
FoD2	Fox loam, 12-18% slopes, eroded		
Ps	Palms muck	Palms muck	Ps
Re	Rensselaer silty clay loam	Rensselaer silty clay loam	Re
Sh	Shoals silt loam	Shoals silt loam	Sh
So	Sloan silty clay loam	Sloan silty clay loam	So
We	Westland clay loam	Westland clay loam	We
Wh	Whitaker loam	Whitaker loam	Wh

Series Established by this Correlation:

None

Series Dropped or Made Inactive:

None

The soils of the survey area have been joined with the unpublished soil surveys in Marion and Hamilton Counties. The survey has also been joined to the recently published Shelby and Madison County soil surveys. General soil maps are reasonably joined and interpretations are coordinated with state and type location interpretative values. The joins are well matched except in a few instances where soils which were represented in one county are not well represented in the other. The joins are reasonable.

The field sheets are ASCS photography and are being compiled onto 1:15840 scale high altitude milar half-tone positive atlas sheets. Compilation is fifty percent complete using alpha-numeric mapping unit symbols. The compiled survey will be forwarded to the Lincoln Cartographic Unit to have overlays prepared for map finishing by Indiana using the new finishing procedures. Guidance for completing overlays will be provided by the Technical Service Center at Lincoln, Nebraska. Compilation of the original field sheets upon the milar half-tone positives will be completed by January 15, 1975.

Cartographic Instructions:
The atlas sheet half-tone positives show highways very clearly. Indiana indicates that they would consider not having highways and roads shown by conventional line symbols but would identify the state and federal highways using symbols for route numbers. Railroads are less apparent and some stretches occur adjacent and parallel to the major highways. The correlator recommends that highways not be shown but that the railways be shown using conventional signs.

The mapping on some atlas sheets is quite detailed and while these have been compiled upon 1:15840 milars, the placement of symbols within small delineations may be somewhat difficult in map finishing. This is particularly true of the very narrow units and especially those units along neat lines which continue onto adjacent field sheets. In map finishing, minimum size for delineations must be established and adhered to.

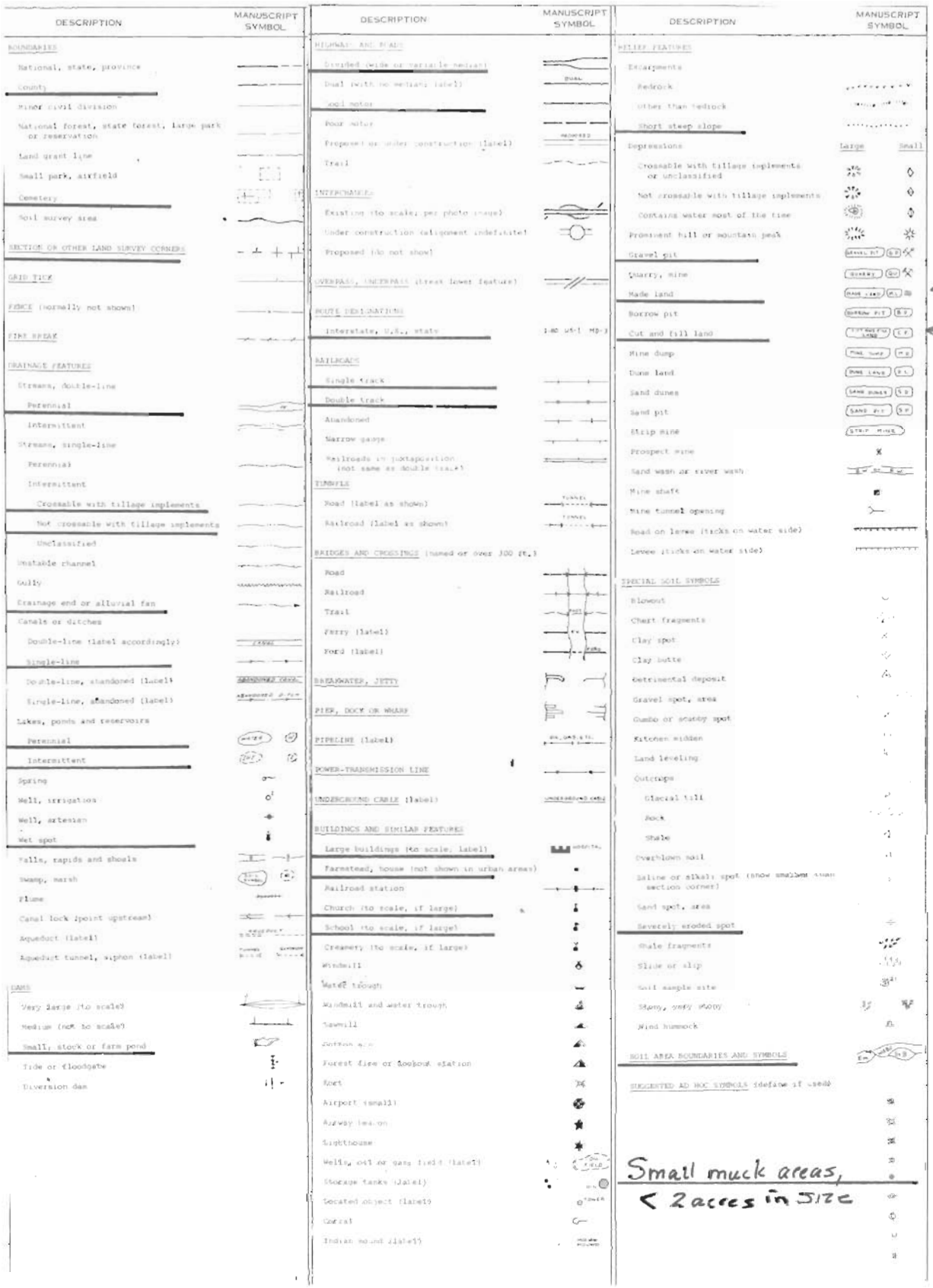
In correlation the Fox mapping units were combined as Ockley soil units and the symbols will be changed in finishing the maps on overlays. These symbols and their matching counterparts are as follows:

FoA combined as OcA
FoB2 combined as OcB2
FoC2 combined as OkC2
FoD2 combined as OkC2

Please note that units FoC2 and FoD2 were combined as OkC2. The soil symbols that were used in field mapping are also the publication symbols except as noted above.

The following legend indicates other signs and symbols compiled from field sheets. These will also be used on the finished overlays. The symbol legend is a reduced compilation symbol legend and the symbols contained therein are the same as those within the Guide for Soil Map Compilation on Photobase Map Sheets, SCS, 1970.

Hancock County, Indiana



DESCRIPTION	MANUSCRIPT SYMBOL
BOUNDARIES	
National, state, province	
County	
Minor civil division	
National forest, state forest, large park or reservation	
Land grant line	
Small park, airfield	
Cemetery	
Soil survey area	
SECTION OR OTHER LAND SURVEY CORNERS	
GRID TICK	
FENCE (normally not shown)	
FIRE BREAK	
DRAINAGE FEATURES	
Streams, double-line	
Perennial	
Intermittent	
Streams, single-line	
Perennial	
Intermittent	
Crossable with tillage implements	
Not crossable with tillage implements	
Unclassified	
Unstable channel	
Gully	
Drainage end or alluvial fan	
Canals or ditches	
Double-line (label accordingly)	
Single-line	
Double-line, abandoned (label)	
Single-line, abandoned (label)	
Lakes, ponds and reservoirs	
Perennial	
Intermittent	
Spring	
Well, irrigation	
Well, artesian	
Wet spot	
Falls, rapids and shoals	
Swamp, marsh	
Flume	
Canal lock (point upstream)	
Aqueduct (label)	
Aqueduct tunnel, siphon (label)	
DAMS	
Very large (to scale)	
Medium (not to scale)	
Small, stock or farm pond	
Tide or floodgate	
Diversion dam	

DESCRIPTION	MANUSCRIPT SYMBOL
HIGHWAYS AND ROADS	
Divided (wide or variable median)	
Dual (with no median) (label)	
Good motor	
Poor motor	
Proposed or under construction (label)	
Trail	
INTERCHANGE	
Existing (to scale; per photo image)	
Under construction (alignment indefinite)	
Proposed (do not show)	
OVERPASS, UNDERPASS (break lower feature)	
ROUTE DESIGNATION	
Interstate, U.S., state	I-40 US-1 MD-3
RAILROADS	
Single track	
Double track	
Abandoned	
Narrow gauge	
Railroads in juxtaposition (not same as double track)	
TUNNELS	
Road (label as shown)	
Railroad (label as shown)	
BRIDGES AND CROSSINGS (named or over 300 ft.)	
Road	
Railroad	
Trail	
Ferry (label)	
Ford (label)	
BREAKWATER, JETTY	
PIER, DOCK OR WHARF	
PIPELINE (label)	
POWER-TRANSMISSION LINE	
UNDERGROUND CABLE (label)	
BUILDINGS AND SIMILAR FEATURES	
Large buildings (to scale, label)	
Farmstead, house (not shown in urban areas)	
Railroad station	
Church (to scale, if large)	
School (to scale, if large)	
Creamery (to scale, if large)	
Windmill	
Water trough	
Windmill and water trough	
Sawmill	
Cotton gin	
Forest fire or lookout station	
Mine	
Airport (small)	
Airway beacon	
Lighthouse	
Wells, oil or gas field (label)	
Storage tanks (label)	
Located object (label)	
Corral	
Indian mound (label)	

DESCRIPTION	MANUSCRIPT SYMBOL	
	Large	Small
RELIEF FEATURES		
Escarpments		
Bedrock		
Other than bedrock		
Short steep slope		
Depressions		
Crossable with tillage implements or unclassified		
Not crossable with tillage implements		
Contains water most of the time		
Prominent hill or mountain peak		
Gravel pit		
Quarry, mine		
Made land		
Borrow pit		
Cut and fill land		
Mine dump		
Dune land		
Sand dunes		
Sand pit		
Strip mine		
Prospect mine		
Sand wash or river wash		
Mine shaft		
Mine tunnel opening		
Road on levee (ticks on water side)		
Levee (ticks on water side)		
SPECIAL SOIL SYMBOLS		
Blowout		
Chert fragments		
Clay spot		
Clay butte		
Eolian deposit		
Gravel spot, area		
Gumbo or scabby spot		
Kitchen midden		
Land leveling		
Outcrops		
Glacial till		
Rock		
Shale		
Overblown soil		
Saline or alkali spot (show smaller than section corner)		
Sand spot, area		
Severely eroded spot		
Shale fragments		
Slide or slip		
Soil sample site		
Stony, very stony		
Wind hummock		
SOIL AREA BOUNDARIES AND SYMBOLS		
SUGGESTED AD HOC SYMBOLS (define if used)		

Small muck areas, < 2 acres in size

Approved: July 24, 1974

Maurice Stout, Jr.
Head, Soil Correlation Staff
Midwest TSC

IDENTIFICATION LEGEND RELATING FIELD SYMBOLS
TO PUBLICATION SYMBOLS

Field Symbol	Publication Symbol	Field Symbol	Publication Symbol
Br	Br	MmC2	MmC2
CrA	CrA	MmD2	MmD2
Ee	Ee	MpC3	MpC3
FoA	OcA	MpD3	MpD3
FoB2	OcB2	Mr	Mr
FoC2	OkC2	OcA	OcA
FoD2	OkC2	Ps	Ps
Ge	Ge	Re	Re
Ko	Ko	Sh	Sh
MaA	MaA	So	So
MaB2	MaB2	We	We
MmA	MmA	Wh	Wh
MmB2	MmB2		

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

Soil type	Sample No.	Correlated Series
Brookston silty clay loam	S71IN30-4-(1-2*)	Brookston silty clay loam
Crosby silt loam	S72IN30-1-(1-9)	Crosby silt loam
Kokomo silty clay loam	S72IN30-10-(1-8*)	Kokomo silty clay loam
	S71IN30-7-(1-8*)	"
Martinsville loam	S71IN30-1-(1-8*)	Martinsville loam
Milford silty clay loam	S71IN30-5-(1-7*)	Milford silty clay loam
	S71IN30-3-(1-6*)	"
Palms muck (thin phase)	S73IN30-1-(1-6*)	Palms muck
	S73IN30-2-(1-6*)	"
	S73IN30-3-(1-5*)	"
	S73IN30-4-(1-5*)	"
Saranac silty clay loam	S71IN30-6-(1-8*)	Sloan silty clay loam
Whitaker loam	S71IN30-2-(1-7*)	Whitaker loam

Notes to Accompany Classification and Correlation of the Soils of Hancock County, Indiana

by
Maurice Stout, Jr.

CROSBY SERIES

These soils are marginal to the fine-silty texture family because they have a control section averaging about 35% clay and ranging from about 33 to 38% clay. The soils occur on ground moraines and lack the sand content and lower average clay content of the Crosier series.

FOX SERIES

The representative profile in the descriptive legend has a lower value and chroma than is typical for the argillic horizon. These colors are typical of the so-called Beta horizon but the B horizons are not dominated by this color. This portion of the B2t also appears to be more clayey and may contain up to 25% gravel by volume. A random field check indicated that most units exceed 40 inches to sand and gravel and differ little from Ockley soils on A and B slopes. The Fox units on the more sloping landscapes appear to be beveled edges of the adjacent Ockley soils and much of the seemingly more clayey, gravelly darker reddish-brown horizons are typical of the lower sola of the Ockley. The FoC2 and FoD2 units contain a wide range of soil thickness over the underlying sand and gravel. The B slope unit is quite small in extent and the units are small and narrow on the landscape. Because of this, the unit was correlated as Ockley complex with components as shallow to gravel as 10 inches and as deep as to qualify as Ockley. The C and D slopes are combined as OkC2.

MIAMI SERIES

Units MpC3 and MpD3 contain taxanomic units that do not qualify for Miami series. The dominant soil, however, is a severely eroded Miami and the other components include soils which are calcareous throughout as well as soils having sola similar to Miami but less than 24 inches in thickness. Because of this variation, these mapping units were correlated as a Miami complex on each of the respective slopes. Components include Miami, Hennepin, Strawn, and pedons having much gravel and smears of reddish-brown washed material.

CLASSIFICATION OF SOILS

Soil Series	Classification
Brookston	Typic Argiaquolls, fine-loamy, mixed, mesic
Crosby	Aeric Ochraqualfs, fine, mixed, mesic
Eel	Aquic Udifluvents, fine-loamy, mixed, nonacid, mesic
Fox	Typic Hapludalfs, fine-loamy over sandy or sandy-skeletal, mixed, mesic
Genesee	Typic Udifluvents, fine-loamy, mixed, nonacid, mesic
Kokomo	Typic Argiaquolls, fine, mixed, mesic
Martinsville	Typic Hapludalfs, fine-loamy, mixed, mesic
Miami	Typic Hapludalfs, fine-loamy, mixed, mesic
Milford	Typic Haplaquolls, fine, mixed, mesic
Ockley	Typic Hapludalfs, fine-loamy, mixed, mesic
Palms	Terric Medisaprists, loamy, mixed, euic, mesic
Rensselaer	Typic Argiaquolls, fine-loamy, mixed, mesic
Shoals	Aeric Fluvaquents, fine-loamy, mixed, nonacid, mesic
Sloan	Fluvaquentic Haplaquolls, fine-loamy, mixed, mesic
Westland	Typic Argiaquolls, fine-loamy, mixed, mesic
Whitaker	Aeric Ochraqualfs, fine-loamy, mixed, mesic

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